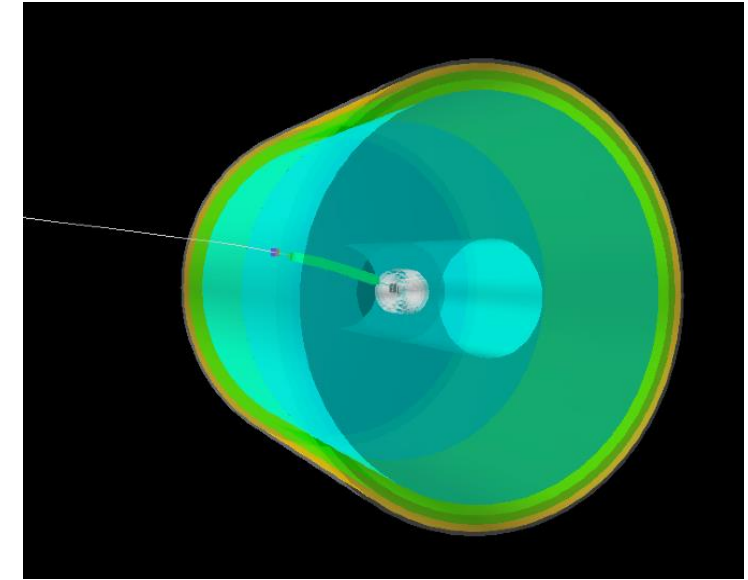


## Day One EIC Central Tracker

- ❖ **Drop Cylindrical  $\mu$ RWELL as an alternative to TPC (for the main i.e. first EIC detector)**
  - ❖ Can not beat the material budget, momentum resolution will always be a challenge
  - ❖ Large volume  $\Rightarrow$  Cylindrical  $\mu$ RWELL will always be a huge challenge
  - ❖ TPC provide PID through  $dE/dx$  that we have to also consider
- ❖ **Push for Single Cylindrical  $\mu$ RWELL layer surrounding the TPC**
  - ❖ Fast signal tracker for TPC
  - ❖ High space resolution point for the DIRC
- ❖ **Simplify detector design for the single layer**
  - ❖ Develop splicing technique for  $\mu$ RWELL

Fast signal layer for First EIC Tracker



## Central Tracker for EIC Second Detector complementary

- ❖ **Develop the case for Cylindrical  $\mu$ RWELL as central tracker for the second detector**
  - ❖ We will have to make the case against alternative (All-Si, Straw tubes, Drift chambers ...)
  - ❖ 25% material budget in forward region  $\Rightarrow$  Strong case for  $\mu$ RWELL as central tracker
  - ❖ Reduce the overall volume of module to build (smaller central tracker volume) - **Optimize the geometry**

Central Tracker for EIC Second Detector

